

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims: Please amend the claims as follows:

We claim:

Claim 1. (Previously Presented) A method for determining endoglycosidase enzyme activity in a sample, comprising:

- i. bringing a substrate which can be cleaved by said endoglycosidase into contact with said sample, and
- ii. measuring a change in the amount of intact substrate, a decrease in the amount of this substrate being representative of endoglycosidase activity in the sample,

wherein the substrate is directly or indirectly labeled with a first donor compound and with a second acceptor compound, and the amount of intact substrate is determined by measuring a signal emitted by the acceptor compound, this signal resulting from a transfer, via a close proximity effect, between the donor and the acceptor.

Claim 2. (Previously Presented) The method as claimed in claim 1, wherein the first donor compound and the second acceptor compound are fluorescent compounds, the close proximity transfer is an energy transfer, and the signal emitted is a fluorescent signal.

Claim 3. (Withdrawn) A method for detecting a compound capable of modulating an endoglycosidase enzyme activity, comprising:

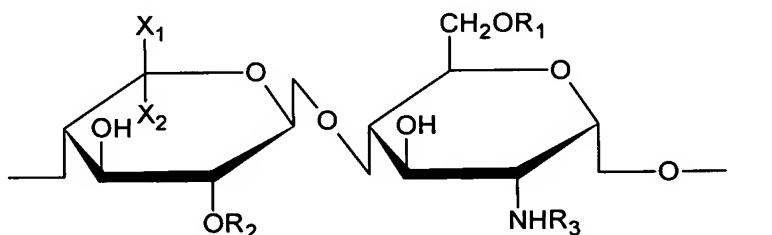
- i. bringing a substrate which can be cleaved by an endoglycosidase into contact with an endoglycosidase, in the presence or absence of the test compound,
- ii. measuring a change in the amount of intact substrate, and
- iii. comparing the change in the amount of substrate measured in the absence of the test product with that measured in the presence of the test product,

wherein the substrate is directly or indirectly labeled with a first donor compound and with a second acceptor compound, and the amount of intact substrate is determined by measuring a signal emitted by the acceptor compound, this signal resulting from a transfer, via a close proximity effect, between the donor and the acceptor.

Claim 4. (Withdrawn) The method as claimed in claim 3, characterized wherein the first donor compound and the second acceptor compound are fluorescent compounds, the close proximity transfer is an energy transfer, and the signal emitted is a fluorescent signal.

Claim 5. (Currently Amended) The method as claimed in claim 1, wherein the endoglycosidase is an enzyme of the heparanase type ~~chosen from~~ which is recombinant heparanase, purified heparanase, nonpurified heparanase ~~and~~ or heparitinase.

Claim 6. (Previously Presented) The method as claimed in claim 1, wherein the substrate is a heparan sulfate proteoglycan or a derivative thereof, extracellular matrix-associated heparan sulfate or a derivative thereof, heparin, or heparan sulfate or a derivative thereof, containing from 1 to 30 units of formula:



wherein

R₁ and R₃ are, independently of one another, H, SO₃H, or SO₃H⁻,

R₂ is SO₃H, SO₃H⁻, or C(O)CH₃, and

X₁ and X₂ are, independently of one another, H or COOH.

Claim 7. (Previously Presented) The method as claimed in claim 6, wherein the substrate is covalently attached to a donor fluorescent compound and to an acceptor fluorescent compound.

Claim 8. (Currently Amended) The method as claimed in claim 6, wherein the substrate is covalently attached to a member of a first ligand-receptor pair and to a member of a second ligand-receptor pair, and ~~in that~~ wherein the donor fluorescent compound is covalently attached to the other member of the first ligand-receptor pair and the donor fluorescent compound is attached to the other member of the second ligand-receptor pair.

Claim 9. (Previously Presented) The method as claimed in claim 6, wherein the substrate is covalently attached to the donor fluorescent compound and is covalently attached to a member of a ligand-receptor pair, and the acceptor fluorescent compound is covalently attached to the other member of said ligand-receptor pair.

Claim 10. (Previously Presented) The method as claimed in claim 6, wherein the substrate is covalently attached to the acceptor fluorescent compound and is covalently attached to a member of a ligand-receptor pair, and the donor fluorescent compound is covalently attached to the other member of said ligand-receptor pair.

Claim 11. (Previously Presented) The method as claimed in claim 8, wherein the first and the second ligand-receptor pair are different and are chosen from the pairs: hapten/antibody, DNP/anti-DNP antibody, GST/anti-GST antibody, biotin/avidin, 6HIS/anti-6HIS antibody, Cmyc/anti-Cmyc antibody, FLAG/anti-FLAG antibody, or HA/anti-HA antibody.

Claim 12. (Previously Presented) The method as claimed in claim 1, wherein the donor compound is a rare earth cryptate or chelate, and the acceptor fluorescent compound is a rhodamine, cyanin, squaraine, bodipy dye, fluorescein, allophycocyanin or a derivative thereof.

Claim 13. (Withdrawn) The method for detecting a compound capable of modulating enzyme activity of the heparanase type as claimed in claim 3, wherein said compound is chosen from anti-heparanase antibodies, natural products, synthetic products, products from a library of compounds obtained by combinatorial chemistry, peptides and proteins.

Claim 14. (Withdrawn) A composition which can be used in one of the methods as claimed in claim 1, comprising a plurality of HSs which may or may not comprise biotin and DNP groups, characterized in that the DNP/HS final molar ratio is between 0.3 and 2, and is preferably equal to 0.7, and in that the biotin/HS final molar ratio is between 0.5 and 2, and is preferably equal to 1.

Claim 15. (Withdrawn) A composition which can be used in one of the methods as claimed in claim 1, comprising a plurality of HSPGs comprising biotin and DNP groups, wherein the DNP/HSPG final molar ratio is between 6 and 15, and is preferably equal to 10.8, and in that the biotin/HSPG final molar ratio is between 6 and 15, and is preferably equal to 8.

Claim 16. (Withdrawn) A kit for carrying out the methods as claimed in claim 1, comprising the following elements:

- a substrate which can be cleaved by an enzyme having activity of the heparanase type,
- a donor fluorescent compound covalently attached or capable of indirectly attaching to said substrate,
- an acceptor compound covalently attached or capable of indirectly attaching to said substrate,

said elements possibly being in the same bottle or in different bottles when the fluorescent compounds are not covalently attached to said substrate.

Claim 17. (Withdrawn)

The kit as claimed in claim 16, characterized in that it contains the following elements:

- a heparan sulfate covalently attached to biotin and to DNP
- a rare earth cryptate covalently attached to an anti-DNP antibody
- XL665 covalently attached to streptavidin.

Claim 18. (Withdrawn)

The kit as claimed in claim 16, characterized in that it contains the following elements:

- a heparan sulfate proteoglycan labeled with biotin and with DNP
- a rare earth cryptate coupled to an anti-DNP antibody
- XL665 coupled to streptavidin.